

## Message Text

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43

ACTION OES-06

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FM USMISSION IAEA VIENNA

TO SECSTATE WASHDC 7919

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UNCLAS IAEA VIENNA 6586

DEPT PASS IO/SCT

E.O. 11652: N/A

TAGS: AORG, OCON, IAEA, TECH, PARM

SUBJECT: IAEA REGIONAL NUCLEAR FUEL CYCLE CENTERS STUDY:  
RADIOACTIVE MATERIAL TRANSPORT ASPECTS

1. MISSION HAS RECEIVED AGENCY LETTER NOTING THAT CONSULTANTS MEETING WILL BE HELD IN VIENNA SEPTEMBER 22-24, 1976 TO DISCUSS DATA INPUTS FOR RADIOACTIVE MATERIALS TRANSPORT ASPECTS OF AGENCY'S REGIONAL NUCLEAR FUEL CYCLE CENTERS STUDY. WORKING PAPER ON SUBJECT IS BEING PREPARED BY A MR. KEESE, TRANSNUCLEAR, INC., FRANKFURT.

2. AGENCY INVITES U.S. TO PROVIDE EXPERT TO ATTEND THIS CONSULTANTS MEETING. AGENCY HOPES CONSULTANT COULD BE PROVIDED AT NO RPT NO COST TO AGENCY, BUT IF THIS IS NOT RPT NOT POSSIBLE, AGENCY PREPARED COVER TRAVEL AND PER DIEM COSTS. (AS IN OTHER SIMILAR CASES, MISSION RECOMMENDS U.S. EXPERT ATTEND AT AGENCY EXPENSE, TO BE CHARGED AGAINST SPECIAL U.S. CONTRIBUTION OF \$100,000 FOR SUPPORT OF THIS STUDY.)

3. TO ASSIST IN SELECTING APPROPRIATE EXPERT, FOLLOWING IS SUBSTANCE OF DRAFT OUTLINE SENT TO KEESE,  
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IN CONNECTION WITH HIS PREPARATION OF DRAFT WORKING

PAPER:

QUOTE (A) THE STUDY OF THE TRANSFER AND SHIPMENTS OF RADIOACTIVE MATERIALS IS AN ESSENTIAL PART OF THE IAEA STUDY PROJECT OF REGIONAL NUCLEAR FUEL CYCLE CENTERS. IN THE CONTEXT OF THIS NOTE BOTH TRANSFERS AND SHIPMENTS SHOULD BE UNDERSTOOD TO MEAN SUCH REPOSITIONING OPERATIONS OF RADIOACTIVE MATERIALS THAT NEED SPECIALLY DESIGNED AND CONSTRUCTED CONTAINERS.

QUOTE (B) THE CATEGORIES OF RADIOACTIVE MATERIALS OF CONCERN ARE: 1) SPENT FUEL; 2) SOLIDIFIED HIGH LEVEL RADIOACTIVE WASTE ORIGINATING FROM REPROCESSING; AND 3) PLUTONIUM.

QUOTE (C) OF THE THREE CATEGORIES OF RADIOACTIVE MATERIALS ONLY 1) AND 2) WILL BE SUBJECTED TO SHIPMENT FROM ONE FACILITY TO ANOTHER. WHERE TRANSFERS OF RADIOACTIVE MATERIAL WITHIN ONE FACILITY ARE CONCERNED IT CANNOT BE EXCLUDED THAT ALL THREE CATEGORIES WILL BE AFFECTED.

QUOTE (D) SHIPMENTS IN ASSOCIATION WITH ENRICHMENT AND FABRICATION OF URANIUM FUEL ARE NOT INCLUDED IN THE STUDY.

QUOTE (E) IN PRINCIPLE THE FOLLOWING TRANSFERS AND SHIPMENTS OF FUEL AND WASTE WILL TAKE PLACE: SPENT FUEL - 1) TRANSFER FROM REACTOR TO LOCAL STORAGE (ASSUMING THAT FLASKS ARE NEEDED); 2) SHIPMENT FROM LOCAL TO REGIONAL STORAGE; LAND AND/OR SEA TRANSPORT POSSIBLY INVOLVING TRANSFERS FROM SHIP TO VEHICLE; 3) TRANSFER FROM LOCAL STORAGE TO REPROCESSING PLANT INVENTORY (ASSUMING FLASKS ARE NEEDED); PLUTONIUM - ONLY LOCAL TRANSFERS WITHIN A FACILITY (REGIONAL CENTER) ARE OF CONCERN - 1) TRANSFER TO EXTENDED STORAGE IN REGIONAL CENTER; 2) TRANSFER FROM STORAGE TO MIXED OXIDE FUEL FABRICATION PLANT; MIXED OXIDE FUEL - 1) SHIPMENT FROM REGIONAL CENTER TO REACTOR; WASTE - ONLY SOLIDIFIED HIGH LEVEL WASTE ORIGINATING FROM UNCLASSIFIED

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REPROCESSING - 1) SHIPMENT TO INTERIM DEPOSITORY; RETRIEVABLE; 2) SHIPMENT TO FINAL DEPOSITORY (GEOLOGIC DISPOSAL) EITHER DIRECTLY OR FROM INTERIM DEPOSITORY.

QUOTE (F) THE PART OF THE STUDY PROJECT DEVOTED TO TRANSPORTATION ASPECTS SHOULD COVER ALL THE VARIOUS OPTIONS FOR HANDLING SPENT FUEL BOTH IN A REGIONAL

AND A NATIONAL PROGRAM. REPROCESSING AT AN EARLY AND  
A (CONSIDERABLY) LATER STAGE AS WELL  
AS STORAGE WITHOUT REPROCESSING SHOULD BE CONSIDERED.

QUOTE (G) IN THE CONTEXT OF TRANSPORTATION THE FOLLOWING  
SUBJECTS SHOULD BE DISCUSSED, DETAILS OF WHICH ARE  
GIVEN BELOW: 1) PHYSICAL DATA; 2) COST DATA;  
3) REGULATORY ASPECTS.

QUOTE (H) PHYSICAL DATA - 1) OPTIMUM DESIGN OF PACKAGINGS;  
2) SHIPMENT FREQUENCY AND/OR NUMBER OF SHIPMENTS;  
SEA, ROAD, RAIL; 3) CAPACITY DEMANDS ON VESSELS,  
TRUCKS AND CARRIAGES; 4) ADVANTAGES/DISADVANTAGES  
IN USING DEDICATED VESSELS, TRUCKS AND ARRIAGES.

QUOTE (I) COST DATA - 1) DESIGN, CONSTRUCTION AND TESTING  
OF PACKAGINGS; 2) PACKAGINGS AND SHIPMENT LICENSING  
PROCEDURES; 3) OPERATIONAL COSTS, SUCH AS  
TRANSPORTATION "FLOW" PLANNING, PHYSICAL SHIPMENT,  
MAINTENANCE, INSURANCES, SPECIAL EQUIPMENT (E.G.,  
CRANES AT TRANSFER POINTS, EMERGENCY EQUIPMENT, ETC.).

QUOTE (J) REGULATORY ASPECTS - IMPLICATIONS OF NEW TRANS-  
PORT REGULATIONS NOW ENTERING INTO FORCE (BASED  
ON THE 1973 IAEA TRANSPORT REGULATIONS).

QUOTE (K) ENVIRONMENTAL EFFECTS, PUBLIC ACCEPTANCE, SAFE-  
GUARDS AND PHYSICAL SECURITY, ALSO IN THE CONTEXT  
OF TRANSPORTATION, WILL BE COVERED IN OTHER PARTS  
OF THE STUDY. CONSEQUENTLY THESE ITEMS WILL NOT  
HAVE TO BE DISCUSSED HERE. WE WOULD, HOWEVER,  
LIKE TO RECEIVE YOUR COMMENTS ON THESE ITEMS ALSO  
FOR FORWARDING TO THE RESPONSIBLE STUDY OFFICERS  
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CONCERNED. UNQUOTE.

4. DRAFT WORKING PAPER EXPECTED TO BE SENT TO U.S.  
EXPERT FOR STUDY PRIOR TO MEETING. PLEASE ADVISE  
U.S. NOMINEE AS SOON AS POSSIBLE.LABOWITZ

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## Message Attributes

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